

invention from the prior art.” Office Action, page 2. The Office Action also adds that if the “prior art structure is capable of performing the intended use, then it meets the claim.” Office Action, page 2. Applicant respectfully submits that the claims are not directed toward an “intended use,” but toward an apparatus configured to perform specific actions.

Specifically, the claimed apparatus, as embodied by independent claims 1, 23, and 34, includes an image information device for capturing image information of a semiconductor wafer substrate before droplets of raw sealant is discharged onto the substrate. Furthermore, the image information device is configured to provide the image information to a control unit. The control unit is constructed to calculate a position for discharging droplets of raw sealant resin on a first surface of the substrate based upon the image information. As such, the limitations of claims 1, 23, and 34 define a structure which is different from that disclosed in the cited references.

Moreover, as a matter of law, “statements of intended use … may … limit apparatus claims … if the applicant clearly and unmistakably relied on those uses … to distinguish prior art.” *Catalina Marketing Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 809, 62 U.S.P.Q.2d 1781 (Fed. Cir. 2002). Furthermore, a limitation including an element “for” performing a function is a structural limitation. *See In re Shaffer*, 108 USPQ 326, 329 (CCPA 1956) (circuit for attenuating is a structure). This is the case here, because Applicants are relying on all of the claim limitations, including those deemed “intended use” by the Office Action, to distinguish over the prior art which fails to teach or suggest claim limitations.

In addition, the “means for” limitations of claims 23-33 do not fall under MPEP § 2114, as indicated by the Office Action. Rather, the “means for” limitations are “means plus function” limitations in accordance with MPEP § 2181. According to the MPEP, “where means plus function language is used to define the characteristics of a

machine..., such language must be interpreted to read on only the structure ... disclosed in the specification and 'equivalents thereof' that correspond to the recited function." MPEP § 2106(II)(C). Again, these are structure claims and the limitations simply cannot be ignored.

Claims 1-2, 6-8, 10-11, 23-24, 28-30, and 32-33 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ciardella I (US 5,711,989). This rejection is respectfully traversed. In a telephonic conversation with the Examiner on May 15, 2007, Applicant's representative confirmed that the rejection is made with reference to Ciardella I FIG. 2 (with related reference numbers), and not to a FIG. 5 (as in later rejections over Bouras).

Claim 1 recites an apparatus for manufacturing a semiconductor device comprising, *inter alia*, "an image information device for capturing image information of said semiconductor wafer substrate prior to said raw sealant resin being discharged from said discharging mechanism; said image information device configured to provide said image information to said control unit, wherein said control unit is constructed to calculate a position based on said image information for said drive mechanism to displace said at least one of said semiconductor wafer substrate and said discharging nozzle, and for said discharging mechanism to discharge said droplets of raw sealant resin on said first surface of said semiconductor wafer substrate" (emphasis added). Claim 23 recites means for performing similar functions. Applicant respectfully submits that Ciardella I does not disclose these limitations.

To the contrary, Ciardella I discloses that the "video camera of the assembly 16 includes a charge coupled device (CCD) whose output is converted to digital form and processed in determining ... the location ... of a selected dot dispensed onto the circuit board 36." Col. 4, ln. 34-39. Therefore, Ciardella I discloses only using the video for determining the location of a dot already dispensed. Applicant respectfully submits that Ciardella I does not disclose, teach, or suggest an image information device for

capturing image information prior to said raw sealant resin being discharged from said discharging mechanism, as recited in claims 1 and 23.

Since Ciardella I does not disclose all the limitations of claims 1 and 23, claims 1 and 23 are not anticipated by Ciardella I. Claims 2, 6-8, 10-11, 24, 28-30, and 32-33 depend, respectively, from independent claims 1 and 23, and are patentable at least for the reasons mentioned above, and on their own merits. Applicant respectfully requests that the 35 U.S.C. § 102(b) rejection of claims 1-2, 6-8, 10-11, 23-24, 28-30, and 32-33 be withdrawn and the claims allowed.

Claims 1-2, 4, 6-8, 10-11, 23-24, 26, 28-30, 32-36, 38, and 40 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Bouras (US 5,906,682) with reference to Ciardella II (US 5,505,777) (incorporated by reference into Bouras). This rejection is respectfully traversed.

Claim 1 recites an apparatus for manufacturing a semiconductor device comprising, *inter alia*, “an image information device for capturing image information of said semiconductor wafer substrate prior to said raw sealant resin being discharged from said discharging mechanism; said image information device configured to provide said image information to said control unit, wherein said control unit is constructed to calculate a position based on said image information for said drive mechanism to displace said at least one of said semiconductor wafer substrate and said discharging nozzle, and for said discharging mechanism to discharge said droplets of raw sealant resin on said first surface of said semiconductor wafer substrate excluding said at least a portion of said electrode” (emphasis added). Claims 23 and 34 recite similar limitations. Applicant respectfully submits that Bouras, even with reference to Ciardella II, does not disclose these limitations.

To the contrary, Bouras discloses that the “desired quantity of adhesive is sufficient to ensure that each of the solder ball-to-solder pad connections of the flip chip 10 is encapsulated with liquid epoxy.” Col. 6, ln. 32-36. Applicant respectfully submits that Bouras does not disclose, teach, or suggest a control unit configured to control said discharging mechanism to discharge said droplets excluding said at least a portion of said electrode, as recited in claims 1, 23, and 34. Nor is Ciardella II cited for these limitations. Thus, Ciardella II does not remedy the deficiencies of Bouras.

Since Bouras, even with reference to Ciardella II, does not disclose all of the limitations of claims 1, 23, and 34, claims 1, 23, and 34 are not anticipated by Bouras. Claims 2, 4, 6-8, 10-11, 24, 26, 28-30, 32-33, 35-36, 38, and 40 depend, respectively, from independent claims 1, 23, and 34, and are patentable at least for the reasons mentioned above, and on their own merits. Applicant respectfully requests that the 35 U.S.C. § 102(b) rejection of claims 1-2, 4, 6-8, 10-11, 23-24, 26, 28-30, 32-36, 38, and 40 be withdrawn and the claims allowed.

Claims 4, 26, 34-36, 38, and 40 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ciardella I in view of Bouras. This rejection is respectfully traversed.

Claims 4 and 26 depend, respectively, from claims 1 and 23, and are patentable at least for the reasons mentioned above, and on their own merits.

In order to establish a *prima facie* case of obviousness “the prior art reference (or references when combined) must teach or suggest all the claim limitations.” M.P.E.P. §2142. Neither Ciardella I nor Bouras, even when considered in combination, teaches or suggests all limitations of independent claim 34. As described above, Bouras does not teach all of the limitations of claim 34. Furthermore, claim 34 recites limitations similar to claims 1 and 23; therefore, Bouras does not cure the above-discussed deficiencies of

Ciardella I. Therefore, claim 34 and dependent claims 35-36, 38, and 40 are not obvious over the cited combination.

Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of claims 4, 26, 34-36, 38, and 40 be withdrawn and the claims allowed.

Claims 3, 5, 25, 27, 31, and 37 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ciardella I, or Bouras et al./Ciardella II, or Ciardella I in view of Boras, in view of Nakazawa et al. (US 5,935,375). This rejection is respectfully traversed. Claims 3, 5, 25, 27, 31, and 37 depend, respectively, from claims 1, 23, and 34, and are patentable at least for the reasons mentioned above, and on their own merits.

Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of claims 3, 5, 25, 27, 31, and 37 be withdrawn and the claims allowed.

Claims 5, 9, 27, 31, and 39 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ciardella I, or Bouras et al./Ciardella II, or Ciardella I in view of Boras, in view of Prentice (US 6,007,631). This rejection is respectfully traversed. Claims 5, 9, 27, 31, and 39 depend, respectively, from claims 1, 23, and 34, and are patentable at least for the reasons mentioned above, and on their own merits.

Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of claims 5, 9, 27, 31, and 39 be withdrawn and the claims allowed.

Claims 5, 9, 27, 31, and 39 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ciardella I, or Bouras et al./Ciardella II, or Ciardella I in view of Boras, in view of Cavallaro (US 6,017,392). This rejection is respectfully traversed. Claims 5, 9, 27, 31, and 39 depend, respectively, from claims 1, 23, and 34, and are patentable at least for the reasons mentioned above, and on their own merits.

Applicants respectfully request that the 35 U.S.C. § 103(a) rejection of claims 5, 9, 27, 31, and 39 be withdrawn and the claims allowed.